

Next-Generation Warning Concepts in the Hazardous Weather Testbed

Lans P. Rothfusz¹, Elliott Jacks², John Ferree³, Gregory J. Stumpf^{4,5}, Travis M. Smith^{4,1}

¹NOAA/OAR/NSSL Norman, OK

²NOAA/NWS Silver Springs, MD

³NOAA/NWS Norman, OK

⁴CIMMS/University of Oklahoma Norman, OK

⁵NOAA/NWS/MDL, Norman, OK

With the exception of introducing storm-based polygon methodology in 2007, National Weather Service (NWS) hazardous weather warnings have changed little in more than 40 years. While generally viewed as a time-honored means of protecting life and property, the overall warning system is often evaluated for improvements – with the most recent effort being NOAA’s Weather Ready Nation initiatives. NOAA’s 20-Year Weather Research and Development Vision also lists “reinventing the severe weather warning system” as one of NOAA’s “Grand Scientific Challenges.” This presentation will introduce a next-generation warning concept intended to help address these initiatives and challenges. The concept, called Forecasting a Continuum of Environmental Threats (FACETs), serves as a broad-based framework and strategy to help focus and direct efforts related to next-generation science, technology and tools for forecasting environmental hazards. This presentation will emphasize how the Hazardous Weather Testbed (HWT) is being (and will be) utilized by FACETs as a vital instrument of change.